ABSTRACT

A barrel gear 1 as a driving mechanism of an electronic control mechanical timepiece has a mainspring 1A having a surface of elastic material coated with a film made of DLC thin film. The mainspring 1A has a superior anti-corrosion property and reduced slide resistance while sufficiently securing both of toughness and rigidity on account of the film, so that proportional limit thereof can be increased to increase energy accumulated in the mainspring 1A.